[0026-1] FIG. 8 is a top view of the treatment, therapy, and massage implement of the exemplary embodiment 205 in accordance with the present invention with a partial view showing a longitudinally located track 207 that houses a saddle 209, a treatment module 208.

[0026-2] FIG. 9 is a plane and partial sectional view of the track 207 showing the module 208 and three supports 211, 214 and 215 are angularly movably mounted with respect to a base frame 250; Single and double doted-dash lines represent the supports are angularly rotated.

[0026-3] FIG. 10 is an enlarged lateral cross-sectional view of the saddle 209 and module 208 from FIG. 8; The module 208 is mounted above the saddle 209, which is movable from a lowered position to a raised position by a linear actuator 253, and the module 208 is shown at a clockwise tilted in a lateral direction.

[0029-1] The use of actuators that generate continuous repeating limiting angular movements helps physical exercise of user's hip socket and leg joints. The body 205 as shown in FIGs. 8 and 9 may comprise a first support 211, a second support 212, a third support 213, two laterally disposed first pivot pins 214 that are mounted at a base frame 219 connect the first support 211 and the second support 212, two laterally disposed second pivot pins 215 that connect the second support 212 and the third support 213, two laterally movable raised pads 202 that are mounted on a upper surface of the first support 211, two laterally disposed armrests 217 that are mounted at

the base frame 219. A first actuator 221 and a second actuator 223 may be mounted at the base frame 219 and connected to the first support 211 and the second support 212, respectively to cause angular movement. A third actuator 225 may be mounted at the second support 214 and connected to the third support 213 to cause angular movement. FIG. 9 shows a generally a bed shape embodiment with solid lines 211, 212 and 213 and a chair shape embodiment with single-dotted dash lines 211′ and 213′. The angular movement may be repeating, continuous or discrete by electric motors including linear actuators, gear motors and pneumatic actuators. Exercise on repeating angular movement of the supports 211, 212 and 213 on hot-acupressure and massage provide quick recovery for long-stay laid down patients in hospitals and rehabilitation facilities, which may represened with double-dotted dash lines for the moved positions of the second support 212″ and third support 213″ by actuators.

[0029-2] The joining mat 14 in FIGs. 1 and 2 or the second support 212 in FIGs. 8 and 9 may be extendable longitudinally for different lengths of the user's thighs as shown in FIG. 2. As shown in FIGs 8 and 9, a support extension 212a is longitudinally and movably mounted at slots 229 that are formed on lateral sidewalls at the second support 212. A handle 230 having a knob and threaded rod is rotatably coupled at the extension 212a and threadly engaged with a nut bracket that is mounted at the second support 212, which provides longitudinal adjustment of the extension 212a with respect to the second support 212. This adjustment may be easily implemented with an electric actuator at the touch of a button. Therefore introduction of the

extendable second support enables to accommodate different thigh lengths of users.

[0030-1] The one of self-centering mechanisms of two raised pads 204 is shown in FIGs. 8 and 9. Each pad 204 is slidably and laterally mounted on the first support 211 and is connected by a bracket 233 to a gear rack 231 that is slidably retained within a U-shaped retainer 235. The two laterally disposed identical racks 231 may be moved simultaneously to and away from a pinion 237 that may be rotated by an electrical actuator.

[0031-1] FIG. 10 shows another swivel mechanism that may provides a rotational conformation to the shape of the users' spine. The saddle 209 is reciprocally movable in a track 207 by a belt 241 that is rotated by a motor (not shown) and an idler 243 (FIG. 8). An electric linear actuator or motor 253 is mounted at the saddle 209 and provides a thrust force through a threaded rod 255 on which a load cell or a force sensor 257 is disposed. The electric linear actuator 253 as shown can be model number L2SG made by EAD motors, Dover, NH. The treatment module 208 comprises two laterally disposed heat-transmitters 260 that are mounted at a upper housing 262 having a convex arcuate surface 264, a lower housing 266 having a concave arcuate surface 268. These arcuate surfaces 264 and 268 provide a rotational freedom with respect to the arcuate center 270, which may be the surface of users' back.

[0031-2] The raised position of the heat-transmitters 260 are

apparently above the planar surface in the first support 211, which is designated as treatment module 208 as shown in FIG. 10. The lowered position of the heat-transmitters 260 are apparently below the planar surface, which is designated as treatment module 208′ shown as single-dotted dash lines.

[0032-1] FIG. 10 shows use of electrical linear actuator 253 that may provide adjustable and yet selectable compression onto user's back. A force sensor 257 is disposed in-between on top of the threaded rod 255 and underneath the lower housing 266. The force sensor 257 can be a load cell or *FlexiForce*® force sensor made by **Tekscan, Inc.**, South Boston, MA.